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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/563,749

01/09/2006

Akira Nishikawa

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7590

01/30/2008

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.

1940 DUKE STREET

ALEXANDRIA, VA 22314

EXAMINER

HAMILTON, CYNTHIA

ART UNIT

PAPER NUMBER

1795

NOTIFICATION DATE

DELIVERY MODE

01/30/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/563,749

Applicant(s)

NISHIKAWA ET AL.

Examiner

Cynthia Hamilton

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01/09/06, 08/14/2006, 04/05/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 04/05/2006, 01/09/2006
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The information disclosure statement filed on 09 January 2006 does not fully comply with the requirements of 37 CFR 1.98(b) because: applicants have failed to supply copies of all of the Japanese documents cited. Abstracting services yielding English abstracts of these Japanese documents have been submitted. Such documents are not the Japanese document and thus do not meet the requirements of 37 CFR 1.98 (a) (2) (i). If only abstracts are submitted, then they need to be cited as non patent literature and as abstracts. Since the submission appears to be *bona fide*, applicant is given **ONE (1) MONTH** from the date of this notice to supply the above mentioned omissions or corrections in the information disclosure statement. **NO EXTENSION OF THIS TIME LIMIT MAY BE GRANTED UNDER EITHER 37 CFR 1.136(a) OR (b).** Failure to timely comply with this notice will result in the above mentioned information disclosure statement being placed in the application file with the noncomplying information **not** being considered. See 37 CFR 1.97(i).

2. The disclosure is objected to because of the following informalities: On page 24 in lines 20, 22 and 24 "ehter" should be --- ether --- . The same misspelling is found on page 24, line 2, at end, page 27, lines 3 and 5.

Appropriate correction is required.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 9-11 and 13-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hashimoto et al (US 2002/0031718 A1). With respect to instant claims 1, 9-11 and 13-20, Example 1 of Hashimoto et al discloses a species which anticipates the instant invention. With respect to Hashimoto et al and Example 1, the composition to be imaged and cures is comprised of a copolymer of 1-(trifluoromethyl)vinyl acetate and p-t-butoxystyrene, i.e. the instant fluoro-resin copolymer, hexamethoxymethylmelamine, i.e. the compound that comprises at least two alkyetherized amino groups, is N-(isopropylsulfonyloxy)succineimide, i.e. the photosensitive acid generating agent, and propylene glycol monomethyl ether acetate, i.e. the solvent. The composition is coated onto a substrate which is a silicon wafer then dried, pre baked then exposed to a KrF excimer laser (103 nm wavelength) then post baked followed by development, thus a cured layer is formed and a cured imaged layer is formed by the method in [0160] and [0162] on a magnesium fluoride wafer with an F2 excimer laser (157 nm). The cured imaged layers on wafers are inherently antifouling and thus anticipate the instant article claims 13-20. "A generic claim cannot be allowed to an applicant if the prior art discloses a species falling within the claimed genus." The species in that case will anticipate the genus. *In re Slayter*, 276 F.2d 408, 411, 125 USPQ 345, 347 (CCPA 1960); *In re Gosteli*, 872 F.2d 1008, 10 USPQ2d 1614 (Fed. Cir. 1989). Mere recitation of newly discovered function or property, inherently possessed by things in prior art, does not cause claim drawn to those things to distinguish over prior art; Patent Office can required applicant to prove that subject matter shown to be in prior art does not possess characteristic relied on where it has reason to believe that functional limitation asserted to be critical for establishing novelty in claimed subject matter may be inherent characteristic of prior art; this burden of proof is applicable to product and process

claims reasonably considered as possessing allegedly inherent characteristics. In re Best, Bolton and Shaw (CCPA) 195 USPQ 430.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 6 and 9-11, 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al (US 2002/0031718 A1). With respect to instant claims 1-3, 6 and 9-20, Hashimoto et al teach in [0055] to [0142] negative resists comprised of alkali soluble binders comprised of the polymer of the Abstract which is a fluorinated polymer formed from a fluoro olefin derived monomer and a crosslinking agent and a photoacid generator and a solvent. The examples of crosslinking agents are in [0059] methylolated amines as many examples and the polymers given as examples are found in [0060] and the photoacid generators are given in [0065] through [0132] and the solvents are given in [0141]. Thus, With respect to instant claims 1-3, 6 and 9-20, the use of any of the given polymers with any of the given methylolated amines with any of the acid generator with any of the solvents would have been prima facie obvious as the simple substitution of one known element for another to obtain predictable results of a negative resist to use in the processes set forth by Hashimoto et al. The end products of any of the processes of curing and imaging would inherently yield the anti fouling features required as the presence of the fluoro groups would act in such a fashion regardless of choice of polymer. In Hashimoto et al, see particularly the Examples and claims

7. Claims 1-3, 5 and 9-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishimura et al (US 5,958,648). 1-3, 5 and 9-20, Examples 1-7 and 14 anticipate the instant invention and inherently are anti-fouling after cure and development.

8. Claims 1-5 and 9 -20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura et al (US 5,958,648). With respect to instant claim 4, Nishimura et al teach the optional use of copolymerizable component (a-3) in column 3, lines 38-48, to be polymerized with the required fluorine monomer of (a-1) and (a-2 ) which is an unsaturated acid. This a-3 component has as some examples fluorine-containing (meth)acrylates such as fluoroalkyl esters of (meth)acrylic acids having 1 to 20 carbon atoms and specific species being fluorine-containing (meth)acrylates such as 2,2,2-trifluoroethyl (meth)acrylate, 2,2,3,3,3-pentafluoropropyl (meth)acrylate, 2-(perfluorobutyl)ethyl (meth)acrylate, 2-(perfluorohexyl)ethyl (meth)acrylate, 2-(perfluorooctyl)ethyl (meth)acrylate and 2-(perfluorodecyl)ethyl (meth)acrylate. The use of any of these (a-3) monomers which could be identified as instant (A1) with instant (A2) as the carboxyl containing unit which could be identified as instant (A2) and the mandatory hexafluoropropylene identifiable as a vinyl compound of instant (A3) would have been the simple substitution of one known element, i.e. monomer, for another to obtain the predictable results of Nishimura et al which is a radiation sensitive composition suitable for use as a negative resist for forming a mask for the production of a circuit such as a semiconductor integrated circuit or a thin film transistor (to be abbreviated as TFT hereinafter) circuit for liquid crystal displays (to be abbreviated as LCD hereinafter) as well as a material for forming a permanent film such as an interlaminar insulating film or a color filter protective film as set forth in their Abstract. The use of any of the cited

crosslinking components set forth by Nishimura et al in col. 10 lines 8-67 inclusive of alkoxymethylated melamine, alkoxymethylated benzoguanamine, alkoxymethylated glycoluril and alkoxymethylated urea are obtained by replacing the methylol group of methylol melamine, methylol benzoguanamine, methylol glycoluril and methylol urea by an alkoxymethyl group would have been obvious for the same reason of simple substitution of one known element for another functioning in the same manner, i.e. crosslinking. This alkoxymethyl group is not limited to a particular kind and selected from the group consisting of a methoxymethyl group, ethoxymethyl group, propoxymethyl group, butoxymethyl group and the like. See in Nishimura et al col. 13-14 for the solvents used and methods of imaging formation of imaged cured layers on substrates which would inherently be antifouling due to the mandatory presence of the fluorinated alkyl groups. Wavelengths of exposure sources to be used by Nishimura et al include 365 nm and 436 nm as well as 248 nm and 193 nm.

9. Claims 1-2, 5, 9-11 and 13-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Endo et al (JP 2003-35961 A) as evidenced by English translation thereof (JP,2003-035961.a from INPIT). With respect to instant claims 1-2, 5, 9-11 and 13-20, the compositions and elements and methods of [0031] through [0044] of Endo et al anticipate the instant invention wherein the polymers are copolymers of tetrafluoroethylene/norbornene/ methacrylic acid with hexamethoxymethyl melamine crosslinker and triphenylsulfonium triflate photoacid generator and propyleneglycolmethylether acetate as solvent. The imaged layers on a substrate inherently possess antifouling properties due to the presence of the fluorine atoms. See also claim 1, [0016]

10. Claims 1-3, 7-9, 14, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konno et al (EP 1 306 163 A1). With respect to instant claims 1-3, 7-9, 14, 17 and 19,

Konno et al teach the formation of antifouling compositions comprised of resins with both fluorine and siloxane groups present as well as the optional use of crosslinking agents inclusive of species of the alkyletherized amino group compounds found in the instant invention and the optional use of photoacid generators as curing catalysts. What is not taught is an explicit example combining these three compounds. Konno et al discloses the nature of their antifouling resin layer starting at [0024] and in [0025] discloses the antifouling resin layer can be made of a fluorine-based resin polymer having a polysiloxane segment in a main chain, i.e. a subgenus of instant claim 1 and 7-8. In [0061], Konno et al teach the addition of a crosslinkable compound either into the composition in admixture with the fluorine-based resin polymer having a polysiloxane segment in a main chain or as a reaction product of the crosslinkable compound and the fluorine-based resin polymer having a polysiloxane segment in a main chain. In [0063] to [0066], the crosslinker is given as alkoxylated melamines and polymethylolated ureas which read on the instant (B) compound. In [0073], Konno et al teach the addition of additives inclusive of a photosensitive acid generator and lists choices of this additive starting in [0082] for photocuring the antifouling composition. Where the antifouling composition is to be coated is disclosed by Konno et al starting in [0093]. Optional monomers for forming the fluorine-based resin polymer having a polysiloxane segment in a main chain are inclusive of the monomers set forth in [0030] through [0036] and may have functional groups of hydroxy and epoxy and may be vinyl, allyl, acrylate, methacrylate, as well as methacrylic acid, crotonic acid and other acids. Preferred examples are given in [0042] and [0051]. With respect to instant claims 1-3, 7-9, 14, 17 and 19, the use of any of the disclosed fluorine-based resin polymer having a polysiloxane segment in a main chain in admixture with any of the disclosed polymethylolated amine



compounds such as the melamines or ureas with a photoacid generator for curing purposes as taught by Konno et al then cured by irradiation to form the anti fouling layers over the transparent substrates as taught would have been the choosing of a finite number of identified predictable solution with a reasonable expectation of success and/or the combining of prior art elements according to known methods to yield the predictable antifouling coated article and/or the simple substitution of one known element for another to obtain predictable results as taught by Konno et al.

11. Claims 1-2, 5, 9-11, 13 and 17-18 rejected under 35 U.S.C. 102(b) as being anticipated by Takagi (JP 2002-40659 A) as evidenced by the English abstracts of PAT-NO: JP 02002040659A and Derwent-ACC-NO 2002-356411 and the Machine translation thereof from AIPN. Takagi is given in the international search report for this application as an X and Y reference. A full translation of sufficient quality is not available to this examiner at this time for a total reading of the Takagi reference. The rejection which follows is dependent upon the English translations available at this time as cited. With respect to instant claims 1-2, 5, 9-11, 13 and 17-18, the abstracts of PAT-NO: JP 02002040659A and Derwent-ACC-NO 2002-356411 teach all but the nature of the melamine crosslinking agent and the species of monomers used to form copolymers with tetrafluoroethylene. The Machine translation at [0012] and [0013] describes the melamine crosslinking agent by structure which is when considering -CH<sub>2</sub>OR<sub>53</sub> is describing a alkyletherized amino compound which reads on the instant (B). The Machine translation disclosed the use of a solvent as well at [0025] and the method of pattern formation starting in [0026]. The example starting in [0037] is so poorly translated with respect to the

melamine compound as to be unclear to its nature. Thus, no further anticipation rejections can be made with respect to the translations now available.

12. The Machine translation of JP 09-54432 A obtained by this examiner is too poor to allow determination of rejection status. JP 09-54432 A has been submitted for a complete translation into English to determine if the X and Y status given in the international stage is applicable in the National stage. The Machine translation is not made of record as no rejection is made thereover.

13. The Machine translation of JP2002-090996 A obtained by this examiner is too poor to allow determination of rejection status with respect to anticipation and 35 USC 102 (b). JP2002-090996 A has been submitted for a complete translation into English. JP2002-090996 A was cited in the International stage prior art search of this application. Sufficient evidence was found to proceed with a rejection under 35 USC 103 (a).

14. Claims 1-3, 5, 9-13 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodama et al (JP 2002-90996 A) as evidenced by English translation thereof (JP,2002-090996.A from INPIT) and AN 2002:237127 (English abstract and registry numbers from ACS on STN), PAT-NO: JP 02002090996A(English abstract from JPO) and DERWENT\_ACC\_NO: 2003-002911 (English abstract and Inventor names from Derwent Information LTD) in view of Williams (Amino Resins, Encyclopedia of Polymer Science and Technology). Text locations in this rejection reference the English abstract and machine translation of Kodama et al. With respect to instant claims 1-3, 5, 9-13 and 17-18, all three English abstracts teach a negative resist composition comprised of (a) a fluoropolymer having an acidic -OH group present, (b) a photoacid, (c) an aminoplast, and (d) a solvent. AN 2002:237127 references several polymers under the last IT section given underneath the AB section. RN 405226-92-8 is clearly a

fluoroterpolymer made from an hydroxy group fluorinated monomer, a fluoroolefin and acetylene. This terpolymer reads on the polymers of claims 1-3 and 5. Other substitutes for the norbornene monomers used to make some of the other explicitly listed polymers in AN 2002:237127 are given in [0015] of the INPIT translation and are inclusive of vinyl cyclohexane, vinyl adamantane, vinyl norbornane and cyclohexyl vinyl ether. As to RN 262617-11-8 in AN 2002:237127, at [0027] of the INPIT translation, the acetate or "carboxylic acid vinylhydrolyzate" is hydrolyzed to form the needed acidic -OH group and thus the acetate group of RN 262617-11-8 would have been hydrolyzed to be used and thus read on the polymers of instant claims 1-3 and 5. With respect to the aminoplast used by Kodama et al, the three Abstracts do not further address the specificity of this compound. Only the English translation from INPIT gives evidence of what Kodama et al includes as choices for the aminoplast to be used. The description is found in [0029] to [0030] on page 6 of 9 where it is clear that the aminoplast can be an alkyletherized methylol group of melamine, urea or guanamine resin. On example is butyl-ized trimethylolmelamine which is the instant at least two alkyletherized amino groups compound of (B). Williams at 8.6 on page 15 of 21 shows the nature of this aminoplast with the formation of a trimethylether of trimethylolmelamine. Starting in [0033] of the English translation from INPIT the process of using the Kodama et al composition is disclosed. The composition is formed, spread out on a silicone wafer, optically exposed, then development occurs to form the pattern. Optical exposure is disclosed to encompass wavelengths from 436 nm to 157 nm as well as electron rays and x rays. Thus, the process forms a cured image in the manner set forth in instant claims 11-12. Thus, with respect to instant claims 1-3, 5, 9-13 and 17-18, the combining of any of the disclosed elements of Kodama et al in the manner disclosed

to form the negative resist, then image and cure it into a patterned cured layer would have been the simple substitution of one known element for another to obtain the predictable results of the a resist pattern excellent in transparency and dry etching nature as taught by Kodama et al [0045] as evidenced by English translation from INPIT as well as obvious to try combining any of the fluoropolymer combinations of Kodama et al with any of the disclosed aminoplasts, solvents and photoacid generators as choosing from a finite number of identified predictable solutions with a reasonable expectation of success and the combinations would have been prima facie obvious as combining prior art elements according to known methods to yield predictable results.

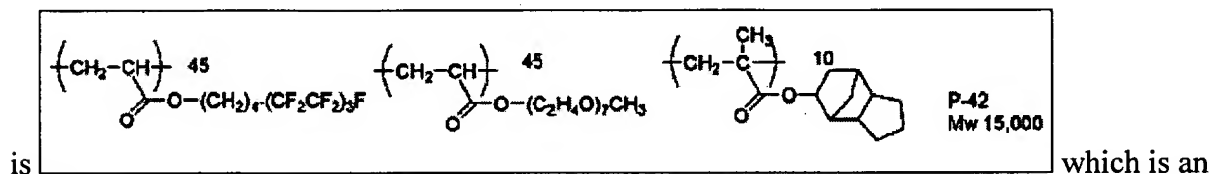
15. The Machine translation of JP 2001-089625 A is made of record to show that the composition used for curing does not appear to be the same as the instant composition. This reference was cited by the in the international search report of this application. The resin being cured by acid and optionally photoacid generation in JP 2001-089625 A is the reaction product of a polyfluororesin with a siloxane reactant then a alkoxymethyl melamine compound. The final product to be cured is not clearly disclosed to contain the required alkyletherized amino groups but instead these groups appear to be consumed in the crosslinking reaction used to form the resin to be cured. Since Konno et al (EP 1 306 163 A1) is by this examiner considered a prior art covering the essential issue of adding siloxane to fluoro resins without the issue of precrosslinking before the acid curing agent, JP 2001-089625 A is not pursued further.

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

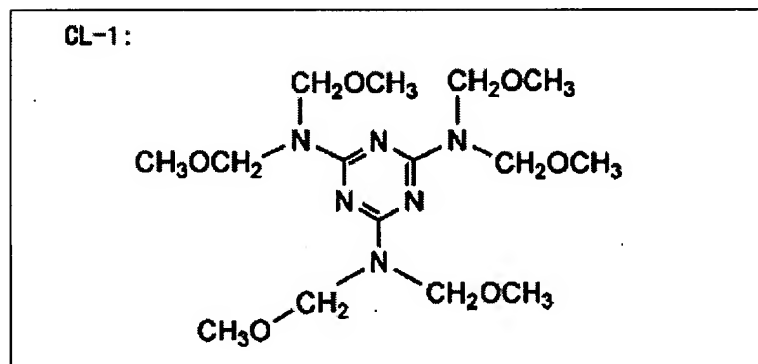
A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

17. Claims 1 and 9-11 and 13-20 are rejected under 35 U.S.C. 102(a) as being anticipated by JP 2003-262959 A as evidenced by Machine translation thereof from AIPN. Reference is made to the translation in this rejection. With respect to instant claims 1 and 9-11 and 13-20, the composition, process of imaging and curing and cured imaged product thereof 24 in Table 2 of JP 2003-262959 A with P-42, CL-1 and p-1 and z13 and b-1 anticipates the instant invention and is inherently when at the final cured imaged product anti fouling due to the nature of the fluororesin present. The method is described in [0261] and [0262]. P-42 is found in [0233] and



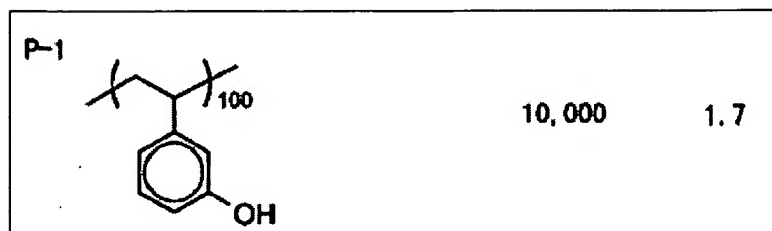
instant copolymer comprised of a fluorine atom. CL-1 is



and the instant at least two

alkyletherized amino groups compound. The solvent is PGMEA, i.e. propylene glycol

monomethyl ether, and P-1 is

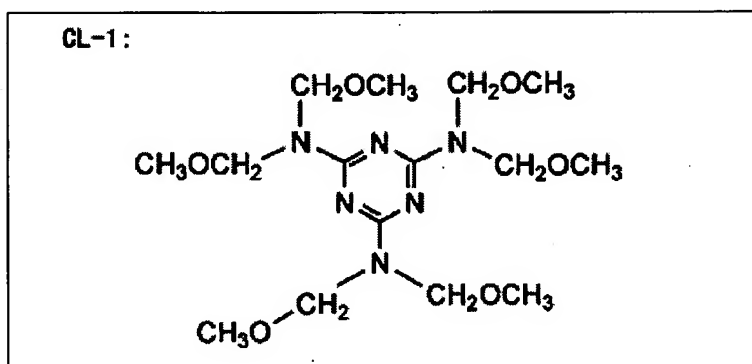


The

z13 is  which is the photoacid generator.

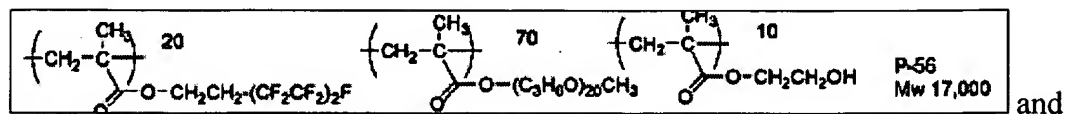
18. Claims 1-4, 9-12 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2003-262959 A as evidenced by Machine translation thereof from AIPN and PAT-NO: JP02003262959A (English abstract from JPO). With respect to instant claims 1-4, 9-12 and 17-18, JP 2003-262959 A as evidenced by JP02003262959A teaches of negative resist composition characterized in that it contains (A) a compound which generates an acid by irradiation of active rays or active radiation, (B) an alkali-soluble resin, (C) a crosslinking agent which crosslinks by an acid, and (D) a fluoro-aliphatic group-containing polymer having a specified repeating unit. JP 2003-262959 A as evidenced by Machine translation thereof from AIPN teaches the

crosslinking agent



can be used in the

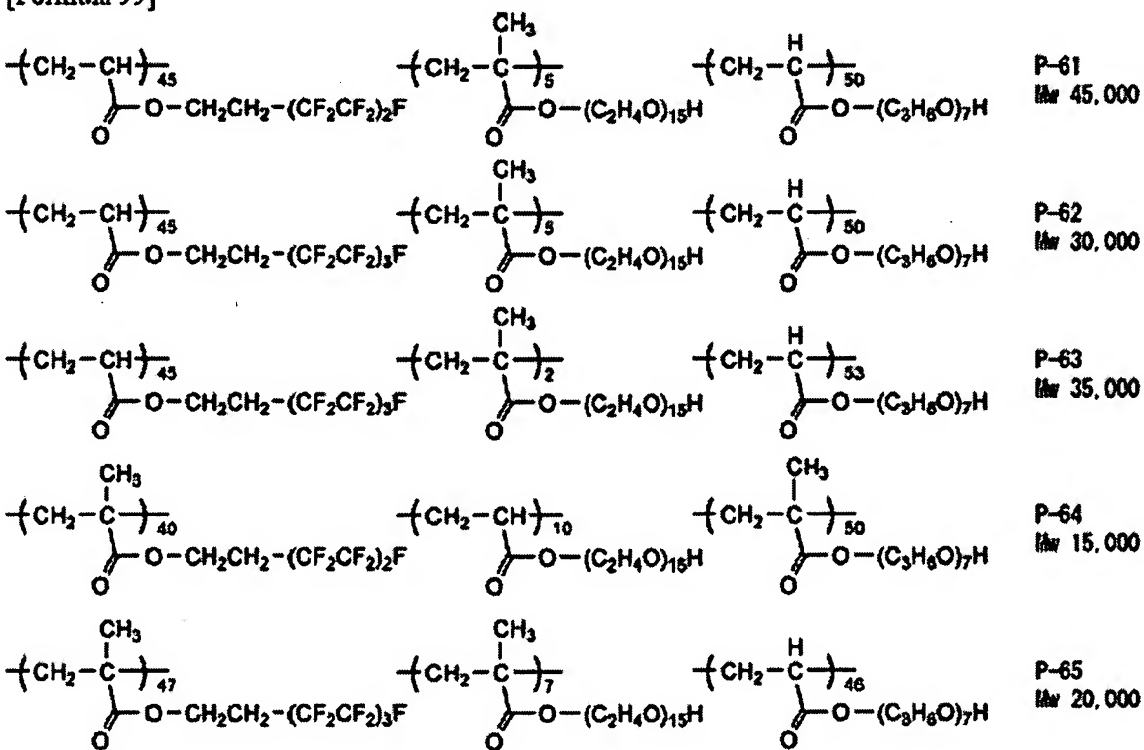
Example 24 in Table 2 and further generally described at [0177] and the fluoro-aliphatic group-containing resins are inclusive of from [0235]



and

[0236]

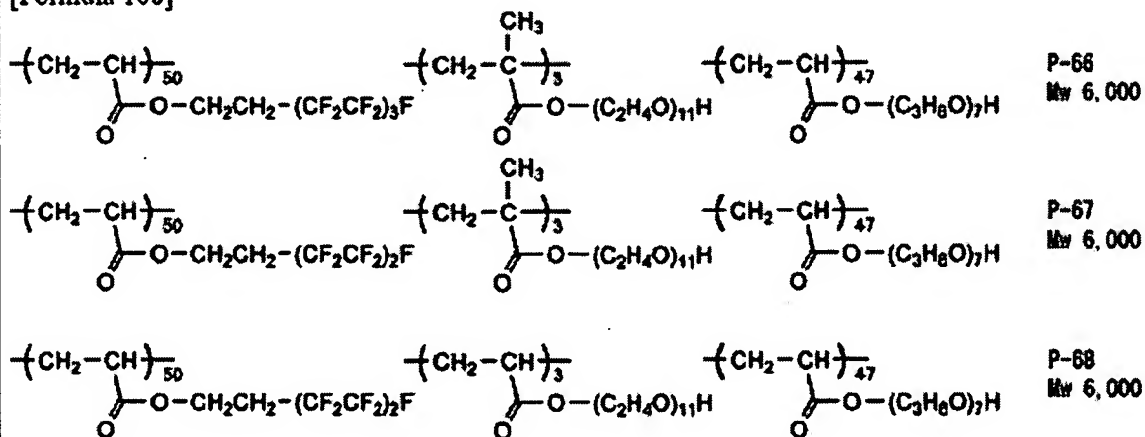
[Formula 99]



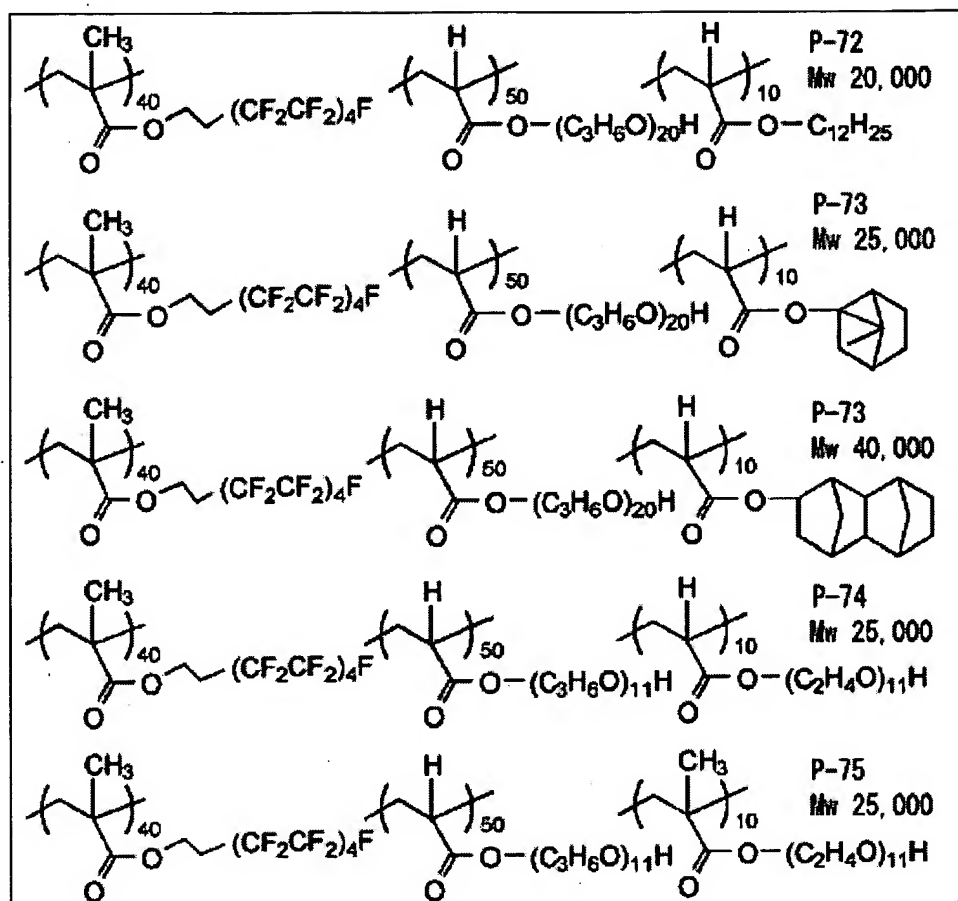
and

[0237]

[Formula 100]



and



from [0238]

The

process of forming cured imaged layers on substrates from these negative resist compositions in JP 2003-262959 A as evidenced by Machine translation thereof from AIPN is set forth in [0261] and [0262] and [0248] to [0249]. With respect to instant claims 1-4, 9-12 and 17-18, the combination of any of the examples of fluoro-aliphatic group-containing polymer such as those given above combined with any disclosed crosslinking agent such as the CL-1 above in the compositions of JP 2003-262959 A to form the negative resist and cured image product from said resist taught with the predictable results of having fewer development defects as set forth in PAT-NO: JP02003262959A (English abstract from JPO) would have been prima facie obvious as the choosing from a finite number of identified predictable solutions with a reasonable



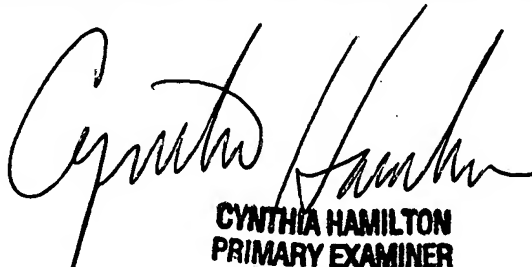
expectation of success as well as the simple substitution of one known element for another to obtain predictable results as taught by JP 2003-262959 A.

*Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Hamilton whose telephone number is 571-272-1331.*

*The examiner can normally be reached on Monday through Friday 8:30 am to 5:00 pm.*

*If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571) 272-0729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.*

*Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.*



**CYNTHIA HAMILTON  
PRIMARY EXAMINER**

Cynthia Hamilton  
Primary Examiner  
Art Unit 1795

January 14, 2008